

REPLACEMENT AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A live recombinant *Mycobacterium bovis*-BCG strain comprising a heterologous nucleic acid capable of expression, the heterologous nucleic acid encoding at least one protein or polypeptide that exhibits alanine dehydrogenase activity, glutamine synthetase activity, or L-serine dehydratase activity.

2. (Currently Amended) ~~A~~The live recombinant *Mycobacterium bovis*-BCG strain ~~comprising a nucleic acid capable of expression of claim 1, wherein the nucleic acid encoding~~ at least one protein or polypeptide selected from the group consisting of alanine dehydrogenase [SEQ ID NO : 1 ; SEQ ID NO : 2], glutamine synthetase [SEQ ID NO : 7 to SEQ ID NO : 14] and L-serine dehydratase [SEQ ID NO : 5 ; SEQ ID NO : 6].

3. (Currently Amended) ~~A~~The live recombinant *Mycobacterium bovis*-BCG strain ~~comprising a nucleic acid capable of expression of claim 1, wherein the nucleic acid comprises~~ all or part of at least one nucleic acid molecule selected from the group consisting of [SEQ ID NO : 1], [SEQ ID NO : 5], [SEQ ID NO : 7], [SEQ ID NO : 9], [SEQ ID NO : 11], and [SEQ ID NO : 13].

4. (Currently Amended) ~~A~~The live recombinant *Mycobacterium bovis*-BCG strain ~~comprising a nucleic acid capable of expression of claim 1, wherein~~ the nucleic acid comprises a sequence having at least 60% sequence identity to at least one nucleic acid molecule selected from the group consisting of [SEQ ID NO : 1], [SEQ ID NO : 5], [SEQ ID NO : 7], [SEQ ID NO : 9], [SEQ ID NO : 11] and [SEQ ID NO : 13].

5. (Currently Amended) The live recombinant *Mycobacterium bovis*-BCG strain of claim 3, wherein the nucleic acid molecule has undergone modification.

6. (Currently Amended) The live recombinant *Mycobacterium bovis*-BCG strain of claim 1, wherein the *Mycobacterium bovis*-BCG~~MYCOBACTERIUM BOVIS-BCG~~ strain is selected from the group consisting of *Mycobacterium bovis*-BCG-Russia, *Mycobacterium bovis*-BCG-Moreau, *Mycobacterium bovis*-BCG-Japan, *Mycobacterium bovis*-BCG-Sweden, *Mycobacterium bovis*-BCG-Birkhaug, *Mycobacterium bovis*-BCG-Prague, *Mycobacterium bovis*-BCG-Glaxo, *Mycobacterium bovis*-BCG-Denmark, *Mycobacterium bovis*-BCG-Tice, *Mycobacterium bovis*-BCG-Frappier, *Mycobacterium bovis*-BCG-Connaught, *Mycobacterium bovis*-BCG-Phipps, and *Mycobacterium bovis*-BCG-Pasteur.

7. (Previously Presented) A pharmaceutical composition comprising the live recombinant *Mycobacterium bovis*- BCG strain of claim 1.

8. (Currently Amended) A vaccine or immunogenic composition for treatment or prophylaxis of a mammal against challenge by Mycobacterium tuberculosis or Mycobacterium bovis ~~mycobacteria~~ comprising the live recombinant *Mycobacterium bovis*-BCG strain of claim 1.

9. (Cancelled).

10. (Previously Presented) The vaccine or immunogenic composition of claim 8 further comprising a pharmaceutically acceptable carrier.

11. (Previously Presented) The vaccine or immunogenic composition of claim 8 further comprising an adjuvant.

12. (Currently Amended) The vaccine or immunogenic composition of claim 8, further comprising immunogenic materials from one or more other pathogens.

13. (Previously Presented) A method for treatment or prophylaxis of a mammal against challenge by *Mycobacterium tuberculosis* or *Mycobacterium bovis* comprising administering to the mammal the live recombinant *Mycobacterium bovis*-BCG strain of claim 1.

14. (Currently Amended) The method of claim 13, wherein the mammal is a cow.

15. (Currently Amended) The method of claim 13₁ wherein the mammal is a human.

16. (Currently Amended) The method of claim 13₁ wherein the vaccine or immunogenic composition is administered in the presence of an adjuvant.

17. (Previously Presented) A method for treatment or prophylaxis of a mammal against cancer comprising administering to the mammal the live recombinant *Mycobacterium bovis*-BCG strain of claim 1.

18. (Currently Amended) The method of claim 17₁ wherein the vaccine or immunogenic composition is administered in the presence of an adjuvant.

19. (Currently Amended) The method of claim 17₁ wherein the cancer is bladder cancer.

20. (Previously Presented) A test kit comprising the live recombinant *Mycobacterium bovis*-BCG strain of claim 1.

21. (Currently Amended) A ~~media~~medium composition for inhibiting the growth of *Mycobacterium bovis*-BCG comprising alanine or serine as the only nitrogen source for growth.

22. (Cancelled).

23. (Currently Amended) The ~~media~~medium composition of claim 21, further comprising:

- (a) a carbon source;
- (b) iron;
- (c) magnesium; and
- (d) S04.

24. (Currently Amended) A ~~media~~medium composition of claim 23, wherein the carbon source is selected from the group consisting of glycerol, dextrose, citrate and glucose.

25. (Currently Amended) A method for inhibiting the growth of *Mycobacterium bovis*-BCG comprising:

(a) obtaining a sample comprising ~~Mycobacterium~~*Mycobacterium bovis*-BCG ;
and

(b) culturing the sample in a selective ~~media~~medium.

26. (Currently Amended) The method of claim 25, wherein the selective ~~media~~medium comprises alanine as the only nitrogen source for growth.

27. (Currently Amended) The method of claim 25, wherein the selective ~~media~~medium comprises serine as the only nitrogen source for growth.

28. (Currently Amended) A method of culturing ~~Mycobacterium bovis~~Mycobacterium bovis-BCG comprising:

- (a) obtaining a sample of ~~Mycobacterium~~Mycobacterium bovis-BCG; and
- (b) culturing the sample in differential-~~media~~medium.

29. (Currently Amended) The method of claim 28, wherein the differential ~~media~~medium comprises histidine.

30. (New) The live recombinant *Mycobacterium bovis*-BCG strain of claim 4, wherein the nucleic acid molecule has undergone modification.